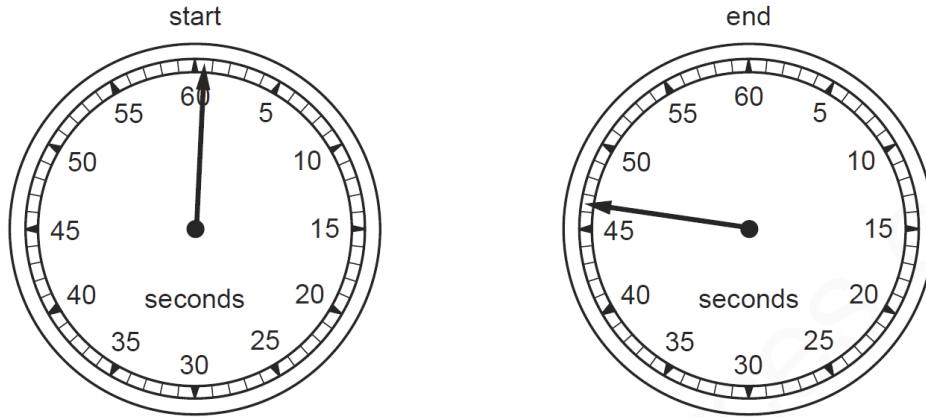


MARKSCHEME+EXPERT SOLUTION

TIME-SET-1

1

A stopwatch is used to time a race. The diagrams show the watch at the start and at the end of the race.



How long did the race take?

$46.5s - 0.5s = 46s$

- A** 45.7 s **B** 46.0 s **C** 46.5 s **D** 47.0 s

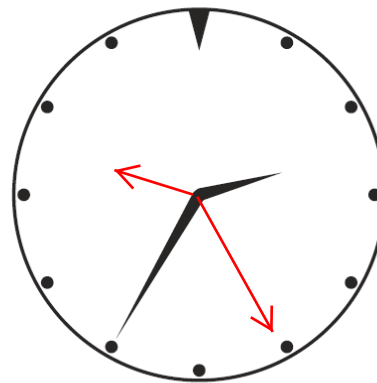
MS-1

B

2

The diagram shows the image of a clock in a plane mirror.

$09:25s$ as shown




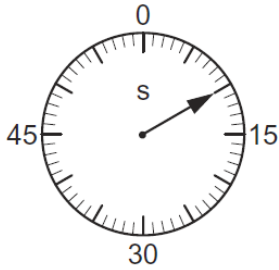
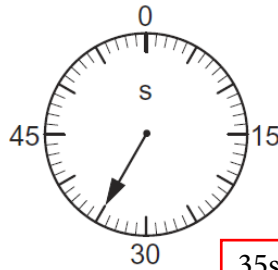


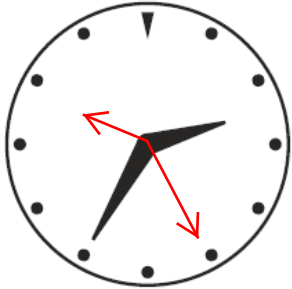
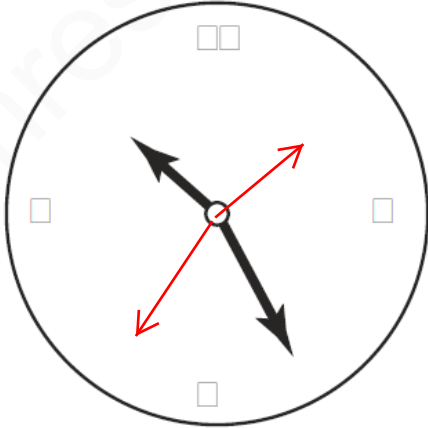
^{s=}
What time is shown?

- A** 02:25 **B** 02:35 **C** 09:25 **D** 09:35

MS-2

C

3	<p>A student uses a stopwatch to time a runner running around a circular track. The runner runs two laps (twice around the track). The diagrams show the reading on the stopwatch when the runner starts running, at the end of the first lap, and at the end of the second lap.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>reading when runner starts</p> </div> <div style="text-align: center;">  <p>reading at end of first lap</p> </div> <div style="text-align: center;">  <p>reading at end of second lap</p> </div> </div> <p>What is the time taken for the runner to run the second lap? $02:03 - 01:13 = 0\text{min}50\text{s}$</p> <p>A 0min 50s B 1min 10s C 1min 13s D 2min 03s</p>
MS-3	A
4	<p>A cook wants to prepare some food to be cooked by 1.15p.m. He uses an oven with an automatic timer that can be set to switch on and off at certain times. The oven needs to be switched on for 2 hours 10 minutes.</p> <p>At which time does the oven need to switch on? $1:15 - 2\text{ hours} = 11:15$ $11:15 - 10\text{min} = 11:05\text{am}$</p> <p>A 11.05 a.m. B 11.25 a.m. C 3.05 p.m. D 3.25 p.m.</p>
MS-4	A
5	<p>The diagrams show the times on a stopclock at the beginning and at the end of an experiment.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>stopclock at beginning</p>  </div> <div style="text-align: center;"> <p>stopclock at end</p>  </div> </div> <p>How long did the experiment take? $35\text{s} - 10\text{s} = 25\text{s}$</p> <p>A 10s B 25s C 35s D 45s</p>
MS-5	A

6	<p>The diagram shows the image of a clockface in a plane mirror.</p> <div style="border: 1px solid red; padding: 5px; width: fit-content; margin: 10px 0;"> <p>As shown, the time before reflection is 09:25</p> </div>  <p>Which of these times is shown?</p> <p>A 02.25 B 02.35 C 09.25 D 09.35</p>
MS-6	C
7	<p>The image of a clock face as seen in a plane mirror is shown.</p> <div style="border: 1px solid red; padding: 5px; width: fit-content; margin: 10px 0;"> <p>The time before reflection=1:35</p> </div>  <p>What is the time on the clock?</p> <p>A 1.25 B 1.35 C 10.25 D 10.35</p>
MS-7	B

8

Two digital stopwatches X and Y, which record in minutes and seconds, are used to time a race. The readings of the two stopwatches, at the start and at the end of the race, are shown.

	start	end
stopwatch X	00:00	00:40

	start	end
stopwatch Y	01:30	02:20

Total time=40 seconds

Total time= 50seconds

Which statement about the time of the race is correct?

- A Both stopwatches record the same time interval.
- B Stopwatch X recorded 10 s longer than stopwatch Y.
- C Stopwatch Y recorded 10 s longer than stopwatch X.
- D Stopwatch Y recorded 50 s longer than stopwatch X.

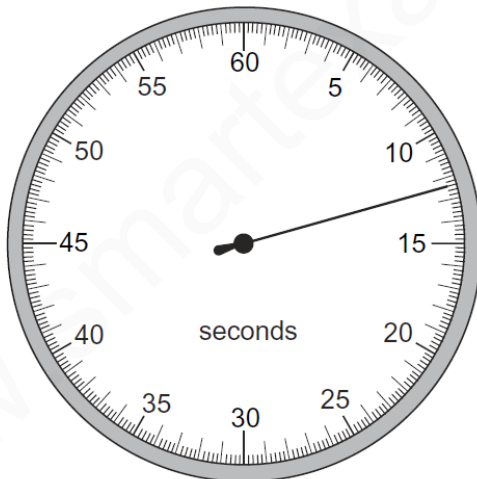
**Time difference
=50-40=10 seconds.
Hecnce option C is
correct**

MS-8

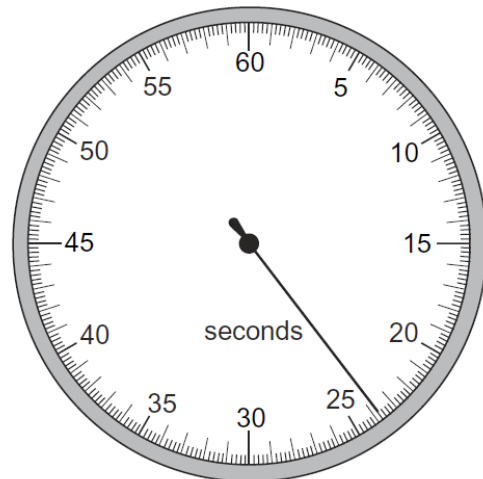
C

9

A stopwatch is used to time an athlete running 100 m. The timekeeper forgets to reset the watch to zero before using it to time another athlete running 100 m.



stopwatch at
end of first
athlete's run



stopwatch at
end of second
athlete's run

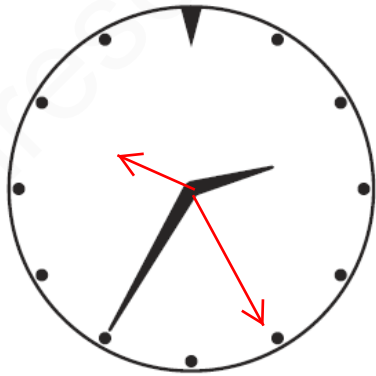
How long does the second athlete take to run 100 m?

23.8s-12.4s=11,4s

- A 11.2 s
- B 11.4 s
- C 12.4 s
- D 23.8 s

MS-9

B

10	<p>Four athletes run twice around a track. The table shows their times at the end of each lap.</p> <p>Which athlete runs the second lap the fastest?</p> <table border="1" data-bbox="292 409 1200 689"> <thead> <tr> <th>athlete</th> <th>time at end of first lap/s</th> <th>time at end of second lap/s</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>22.99</td> <td>47.04</td> </tr> <tr> <td>B</td> <td>23.04</td> <td>47.00</td> </tr> <tr> <td>C</td> <td>23.16</td> <td>47.18</td> </tr> <tr> <td>D</td> <td>23.39</td> <td>47.24</td> </tr> </tbody> </table> <div data-bbox="1206 427 1489 629" style="border: 1px solid red; padding: 5px;"> <p>Speed=dist/time A=>22.99/47.04=0.488m/s B=>23.04/47=0.490m/s C=>23.16/47.180.4908m/s D=> 23.39/47.24=0.495m/s Hence D is the fastest</p> </div>	athlete	time at end of first lap/s	time at end of second lap/s	A	22.99	47.04	B	23.04	47.00	C	23.16	47.18	D	23.39	47.24
athlete	time at end of first lap/s	time at end of second lap/s														
A	22.99	47.04														
B	23.04	47.00														
C	23.16	47.18														
D	23.39	47.24														
MS-10	D															
11	<p>The diagram shows the image of a clock in a plane mirror.</p> <div data-bbox="284 1160 743 1256" style="border: 1px solid red; padding: 5px;"> <p>Time before reflection=09:25 as shown</p> </div>  <p>What time is shown?</p> <p>A 02:25 B 02:35 C 09:25 D 09:35</p>															
MS-11	C															